

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re the Application of: **Yasuhiko ONISHI et al.**

Group Art Unit: **2613**

Application Number: **10/536,901**

Examiner: **Liam Heincer**

Filed: **May 27, 2005**

Confirmation Number: **6263**

For: **CATIONIC GRAFT-COPOLYMER FOR NON-VIRAL GENE DELIVERY VECTOR**

Attorney Docket Number: **052603**

Customer Number: **38834**

**DECLARATION UNDER 37 C.F.R. §1.132**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

December 18, 2007

Sir:

I, Yasuhiko Onishi, a citizen of Japan, hereby declare and state the following:

1. I graduated from Hiroshima University of West Hiroshima City, Hiroshima Prefecture, Japan in 1967 with a bachelor degree in engineering.
2. Since 2005, I have been employed by Ryuju Science Corporation of Seto City, Aichi Prefecture, Japan where my present title is director. During my employment therein, I have conducted research and development.
3. I am the author of the following publications:  
“Characteristics of 2-diethylaminoethyl(DEAE)-dextran-MMA graft copolymer as a non-viral gene carrier”, Nanomedicine: Nanotechnology, Biology, and Medicine, 3:184-191, 2007.
4. I have read and am familiar with the above-identified patent application as well as the Official Action dated September 19, 2007, in the application.

Declaration under 37 C.F.R. §1.132  
Application No. 10/536,901  
Attorney Docket No. 052603

5. I have read and am familiar with the contents of cited references, U. S. Patent Nos. 4,816,540 to Onishi; and “Gene-Delivery Polymers” to Park cited in the Official Actions in the above-identified application.

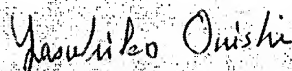
6. Under my supervision and control, I conducted experiments to obtain data for illustrating the efficacy/transfection efficiency of the claimed non-viral gene delivery vector comprising the graft copolymer as compared with prior known vectors for this particular purpose.

7. In the data, Example 1 (DDMC) is compared with PolyFect Reagent (QIAGEN GmbH) having dendrimeric structures shown in Section 2.2.2 of Pack (Gene delivery polymers). The data is for transfection for COS7 cells by pGL3DNA/DDMC. The cells were ready to harvest 72 hours after the transfection, and were then assayed for luciferase activity. The results are presented in the attached graph.

8. From the attached experimental results, I have concluded, among other things, that the claimed non-viral gene delivery vector has a higher transfection efficacy/transfection efficiency as compared with the prior known vectors.

Declaration under 37 C.F.R. §1.132  
Application No. 10/536,901  
Attorney Docket No. 052603

The undersigned declares that all statements made herein of his own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that willful false statements may jeopardize the validity of the application or any patent issued thereon.



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Yasuhiko Onishi

Signed this 18 day of December, 2007.

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re the Application of: **Yasuhiko ONISHI et al.**

Group Art Unit: **2613**

Application Number: **10/536,901**

Examiner: **Liam HEINCER**

Filed: **May 27, 2005**

Confirmation Number: **6263**

For: **CATIONIC GRAFT-COPOLYMER FOR NON-VIRAL GENE  
DELIVERY VECTOR**

Attorney Docket Number: **052603**

Customer Number: **38834**

**REQUEST TO CHARGE**

Mail Stop 16  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

December 19, 2007

Sir:

Applicants filed a new patent utility application (National Stage of PCT/JP2004/000086) on May 27, 2005. Applicants included a check for \$600.00 for the Basic National Stage Fee \$150.00, National Stage Search Fee \$250.00, National Stage Examination Fee \$100.00 and Fee for one extra independent claim \$100.00.

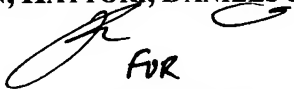
The amount of **\$250.00** was erroneously **credited** to deposit account number 50-2866 on September 7, 2005 after **\$200.00** was erroneously **charged** to deposit account number 50-2886 on September 7, 2005. Applicants do not recognize this charge for anything that has been filed in the referenced application. A copy of the Deposit Account monthly statement of September 2005 accompanies this Request.

Request for Charge  
Application Number: **10/536,901**  
Attorney Docket No. **052603**

Applicants request that the Patent Office charge back the amount of **\$50.00** to Deposit  
Account 50-2866.

Respectfully submitted,

**WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP**

  
FOR

*RYAN CHIRNOMAS*

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LCW/af

Enclosures: Deposit Account Monthly Statement of September 2005



**United States  
Patent and  
Trademark Office**

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Page**Deposit Account Statement**

**Requested Statement Month:** September 2005  
**Deposit Account Number:** 502866  
**Name:** WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP  
**Attention:** ACCOUNTS PAYABLE  
**Street Address 1:** 1250 CONNECTICUT AVE, NW  
**Street Address 2:** SUITE 700  
**City:** WASHINGTON  
**State:** DC  
**Zip:** 20036  
**Country:** UNITED STATES

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START	SUM OF	SUM OF	END
BALANCE	CHARGES	REPLENISH	BALANCE
\$9,990.00	\$3,360.00	\$4,560.00	\$11,190.00

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